

Amendments to the Claims:

1. (Currently Amended) Apparatus for converting power from a power input to an output power supply, ~~which the apparatus comprises~~ comprising:

a resonance converter ~~containing, the resonance converter comprising~~ at least two serial coupled semiconductor switches, wherein:

the semiconductor switches comprise having at least one common output terminal,

the one common output terminal is connected to at least one first coil,

the first coil is connected to a first capacitor,

the first coil ~~which~~ is part of a transformer, having

the transformer comprises a second coil connected to rectifier means, ~~which~~

the rectifier means has its output connected to output terminals, ~~where~~

a first feedback circuit ~~is connected from~~ connects one of the output ~~terminal~~ terminals to an error amplifier, ~~which~~

the error amplifier is connected to ~~[[an]]~~ a first input ~~[[at]]~~ of a control circuit, ~~which~~

the control circuit comprises an output that is connected over driver means to ~~[[the]]~~ an input of the semiconductor switches, ~~where the apparatus further comprises~~

a second feedback circuit ~~where the second feedback circuit is leading~~ transmits a feedback signal from at least one capacitor(s) C_p the first capacitor, which

the first capacitor is serially connected ~~in serial~~ to the first coil ~~to an input terminal~~ and to ground, wherein

the second feedback circuit is connected to ~~[[the]]~~ a second input terminal of the control circuit, ~~which~~

the second input terminal is connected to at least one second capacitor, ~~which~~

the second capacitor ~~is controlling the~~ controls a switching frequency of the semiconductor switches, which

the second feedback circuit comprises a transmits the feedback signal depending on ~~[[the]]~~ an actual change of ~~[[the]]~~ charge over the serial resonance capacitor C_p (19) of the first capacitor in each half period of switching of the first capacitor, which and the feedback signal linearizes the influence of the first feedback circuit.

2. (Currently Amended) Apparatus according to claim 1, wherein the second feedback circuit is connected ~~from~~ to the ~~serial-resonance first~~ capacitor C_p ~~(19) to at least one through a third capacitor, where and the third capacitor is connected to a fourth at least one further capacitor that~~ is connected to a common ground.

3. (Currently Amended) Apparatus according to claim 1, wherein the second feedback circuit ~~contains~~ comprises an inverting amplifier, ~~which and an output of the inverting amplifier is connected to the second input terminal through at least one a capacitor of the at least one second capacitor.~~

4. (Currently Amended) Apparatus according to claim 3, wherein the output from the inverting amplifier is connected to a serial connection of a resistor and a further capacitor of the at least one second capacitor, ~~which and the serial connection [[I]] is coupled in parallel to the capacitors capacitor and the further capacitor of the at least one second capacitor.~~

5. (Currently Amended) Method for power conversion control in serial resonance switch mode power converters operating in frequency mode at normal operation ~~where, the method comprising the steps of:~~

converting a first feedback signal, from ~~[[the]]~~ a power output, ~~is converted via an opto-coupler~~ to an input to a switching means, ~~wherein~~

influencing via a second feedback signal ~~is used to influence the charging and discharging of at least one second capacitor connected to the controlling an oscillating circuit, and where by~~

with increasing load, changing the mode of operation ~~is changed~~ into a charge mode control by ~~[[a]]~~ the second feedback signal, ~~which~~

wherein the second feedback signal is based on [[the]] an actual charging current of first serial resonant capacitors and thereby a change in charge in each half period of switching on the first serial resonant capacitor(s) C_p, C_p' capacitors.